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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/098,593	03/18/2002	Shinichi Kojima	ASA-1075	7649
24956	7590	12/09/2004	EXAMINER	
MATTINGLY, STANGER & MALUR, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			SONG, HOON K	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/098,593		KOJIMA ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Hoon Song		2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-25 and 27 is/are rejected.
- 7) ☒ Claim(s) 19 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6, 8-9, 11-14, 16-17, 20-21, 24 and 27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 26-33 of copending Application No. 10/253,492. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are anticipated by the claims of the copending application as follows:

Regarding claims 1, 6, 12 and 21, the copending application claims a radiological imaging apparatus comprising:

an X-ray source that radiates X-rays;

a first X-ray source transfer apparatus for rotating said X-ray source around a bed supporting a test subject;

a plurality radiation detectors that output both a first detection signal which is a detection signal of said X-rays that have passed through said test subject and a second detection signal which is a detection signal of y-rays radiated from said test subject; and

a second X-ray source transfer apparatus for moving said X-ray source in a longitudinal direction of said bed between said radiation detectors and said bed (claim 26).

A signal processor that calculates an intensity of said first detection signal based on the output signal of said first radiation detector;

Regarding claims 2, 8, 11, 13, 16 and 24 the copending application claims a tomographic image data creation apparatus that creates first tomographic image data of said test subject based on said first detection signal, creates second tomographic image data of said test subject based on said second detection signal and creates fused tomographic image data combining said first tomographic image data and said second tomographic image data (claim 32).

Regarding claims 3, 14 and 17, the copending application fails to claim a controller that instructs said X-ray source to radiate and stop radiating X-rays alternately and to radiate X-rays for a set time.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the x-ray of the copending application with the known pulsed x-ray irradiation, since the pulsing of x-ray irradiation would reduce x-ray dosage.

Regarding claims 4, 9, 20 and 27, the copending application claims said radiation detector is either a semiconductor radiation detector or a scintillator (claim 31).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 5, 7, 10, 15, 18, 22-23 and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 26-33 of copending Application No. 10/253492 in view of Saoudi et al. (US 6448559B1).

Regarding claims 7, 10, 15 and 22-23, the copending application fails to claim a signal discriminator that separate said second detection signal from the output signal of said second radiation detector; and a counter that calculates a count rate for the second detection signal separated by said signal discriminator.

Saoudi teaches CT/PET system scanner having a signal discriminator that separate said second detection signal from the output signal of said second radiation detector; and a counter that calculates a count rate for the second detection signal separated by said signal discriminator (column 7 line 57 and column 8 line 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the imaging apparatus of the copending application with the signal discriminator and counter as taught by Saoudi, since the devices of Saudi would provide proper operation of combined CT and PET detectors so that accuracy of the radiographic imaging will be improved.

Regarding claims 5, 18, and 25, the copending application fails to claim an image pickup apparatus is provided with a collimator placed facing said radiation detectors arranged in a ring form and said collimator is placed inside said radiation detectors.

Saoudi teaches an image pickup apparatus is provided with a collimator (104) placed facing said radiation detectors arranged in a ring form and said collimator is placed inside said radiation detectors.

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the imaging apparatus of the copending application with the collimator as taught by Saoudi, since the collimator of Saoudi would provide improved image by reducing scattered radiation.

This is a provisional obviousness-type double patenting rejection.

#### ***Allowable Subject Matter***

Claims 19 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 19 and 26, none of the prior art teaches or suggests a collimator transfer apparatus that transfer a collimator in the axial direction of a x-ray  $\gamma$ -ray radiation detector ring structure as claimed in dependent claims 19-26.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS

12/2/04  
HKS



DAVID V. BRUCE  
PRIMARY EXAMINER